

MEAN BEAN CONSULTING

Table of Specification

General Requirments	Specific Requirements	Marginal Targets	Ideal Targets
Thermal Characteristics	Thermal properties within the drum	Thermalcouple in the drum	Multiple Thermal couples in the drum
	Thermal Properties outside the drum	Thermalcouple on the drum	Thermalcouple Rotates with the drum
	Thermal Properties of Air coming into the drum	Sensors placed in air stream	Temperture, pressure, humidity are all monitored
	Thermal Properities of the coffee bean	Thermalcouple in the beans	Sensor representative of coffee bean
	Thermal Properties of heat exchanger	Sensor placed on heat exchanger	multiple sensors over the heat exchanger
Air Flow Characteristics	Flow at hopper C	Mass Flow	Mass and Volumetric Flow
	Flow in two channels at B	Mass Flow	Mass and Volumetric Flow
	Flow out of the frum at D	Mass Flow	Mass and Volumetric Flow
Pressure Distribution throughout system	Pressure Under Heater	Accuracy within 80%	Accuracy within 95%
	Pressure in the drum	Accuracy within 80%	Accuracy within 95%
	Ambient Pressure	Accuracy within 80%	Accuracy within 95%
Reliable	Accurate Sensors	Sufficient speed for data acquisition	High speed high accuracy
	Sensors that survive high temps	Limited cycle life	Long Life time
Safe	Doesn't compromise integrity	Minimum impact on operation	Improves integrity of machine
	No additional risk to operator	Reduced risk of operator	Elimiate any risk to operator
	Doesn't harm environment	No additional harm to environment	Reduce enviornmental impact of machine